

REMARKS

Reconsideration of this application is requested. Claims 1-11 and 13-15 are in the case.

I. THE 35 U.S.C. § 112, FIRST PARAGRAPH, REJECTION

Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, on the ground that the specification while being enabling for lower aliphatic esters, such as ethyl acetate, allegedly does not reasonably provide enablement for all of the various lower aliphatic esters, such as branched alkyl esters known in organic chemistry. Furthermore, the Examiner alleges that while the specification is enabling for lower olefin such as ethylene or propylene, the specification allegedly does not provide enablement for all lower olefins such as branched olefins. In addition, the Examiner takes the position that the specification, while enabling for heteropolyacid catalyst such as 12-tungstophosphoric acid, 12-molybdophosphoric acid, 12-tungstosilicic acid, allegedly does not reasonably provide enablement for all heteropolyacid catalysts.

In response, and without conceding to the merit of the Examiner's position, claim 1 has been amended to define the lower olefin as selected from ethylene and propylene, and to define the lower aliphatic mono-carboxylic acid as a C₁-C₄ carboxylic acid. Claim 12 has accordingly been canceled without prejudice.

The assertion that the specification is not enabling with respect to the heteropolyacid component is respectfully traversed. Heteropolyacids are well known to one of ordinary skill in the art and the use of such catalysts as esterification catalysts is well described. The invention in this case is a process to protect such catalysts from

becoming inactivated, and would reasonably be expected by one of ordinary skill to apply to all known heteropolyacid acids. Restriction of the claims to the particular heteropolyacids named in the specification would provide an easy route for third party competitors to circumvent the claims while taking the benefit of our invention.

It is believed that the invention as now claimed is fully enabled by the originally filed specification. Withdrawal of the outstanding 35 U.S.C. § 112, first paragraph, rejection is respectfully requested.

II. THE 35 U.S.C. § 112, SECOND PARAGRAPH, REJECTION

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite because of the language "a plurality of reactors" and "metal compound impurities". This rejection is respectfully traversed.

The term "plurality of reactors" is clear and represents an accurate description of what is required to put the invention into effect. The use of a plurality of reactors is required to achieve a satisfactory conversion of starting materials and to maintain the desired ration of olefin:acid therein. The precise number of reactors chosen for a particular embodiment of the claimed process is a matter of routine for one of ordinary skill in this art.

The term "metal compound impurities" is also an accurate term to describe materials that will reduce the catalyst activity. Heteropolyacids are strong acids capable of reacting with metal compounds, for example by displacing anions from metal salts and forming the metal salt of the heteropolyacid. The source of the metal compound is immaterial. What is important is that the feedstock should be rendered substantially

free of such metal compound impurities before coming into contact with the catalyst bed.

Withdrawal of the outstanding 35 U.S.C. § 112, second paragraph, rejection is believed to be in order. Such action is respectfully requested.

III. INFORMATION DISCLOSURE STATEMENT

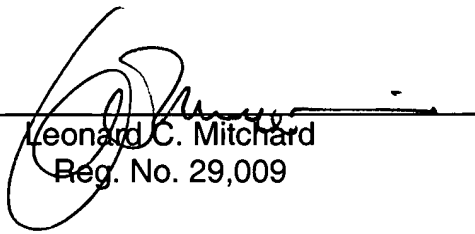
Attached is a completed PTO-1449 listing references in connection with the present application. Also attached is a copy of each of those references along with the requisite IDS fee. The Examiner is requested to initial the attached PTO-1449 and return a copy of the initialed document to the undersigned with the next paper to issue in this application.

Allowance of this application is awaited.

Respectfully submitted,

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By: _____


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